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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/990,346	11/23/2001	Stefan Boehm	2000P20473	2233

466 7590 07/24/2003

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ARLINGTON, VA 22202

EXAMINER

GLICK, EDWARD J

ART UNIT	PAPER NUMBER
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2882

DATE MAILED: 07/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/990,346

Applicant(s)

BOEHM ET AL.

Examiner

Irakli Kiknadze

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

1. This Office action corresponds to the Preliminary Amendment filed November 23, 2001.

### ***Drawings***

2. The drawings are objected to because the box elements in figures 1, 2 and 3 need to be labeled in accordance with 37 CFR 1.83(a) stating that the drawing in a nonprovisional application must show every feature of the invention specified in the claims. However, conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention, should be illustrated in the drawing in the form of a graphical drawing symbol or a labeled representation (e.g., a labeled rectangular box). Correction is required.

### ***Specification***

3. The specification should be arranged in the preferred layout for the specification of a utility application, as provided in 37 CFR 1.77(b). Correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitation of "possibly present", in claims 1 and 24, doesn't set forth a proper distinct limitation as required under 35 U.S.C. 112, second paragraph. Further, the limitation "in particular" found in claims 2 and 7 is indefinite as to limiting subject matter.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sudo et al. (US Patent 5,144,446) in view of Tan et al. (US Patent 6,381,357 B1).

With respect to claims 1-37, Sudo discloses (see abstract) an image correcting circuit for a solid state imager including a "self-tested mode which needs no input by the user when the solid state imager is switched ON, the detection and interpolation of the defective pixel can be automatically carried out when the solid state imager is powered" (column 14; lines 34-38). Though Sudo is silent as to the use of the solid state imaging system with the pixel defect detection, detecting defective pixels within an image sensor is well known in medical examination imaging. Tan discloses "any image

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capture device or imaging system, or combination thereof and is utilized to capture an image of a scene (540) (Fig.5). Essentially, captured images are processed by an image processing circuit (532) so that they can be efficiently stored in an image memory unit (534). The image (s) contained within image memory unit (534) that is destined for computer system (510) is for the purpose of determining the defective pixel locations of the camera (530). In most digital cameras that can perform still imaging, images are stored first and downloaded later. This allows the camera (530) to capture the next object/scene quickly without additional delay (column 7; lines 1-15). As such, it would have obvious to one of ordinary skill in the art at the time invention was made to employ the self-diagnostic solid state imaging system of Sado's with the pixel detection system of Tan thereby allowing for updated correcting of any future images been taken. Further, Tan discloses that the setting of parameters for determining pixel defects is based on threshold value and a map of defective pixel locations is stored and can be continuously accessed when an image captured by the imaging device needs to be enhanced, filtered or otherwise processed (Fig. 1. column 3; lines 1 – column 4; line 30). It would have obvious to one of ordinary skill in the art at the time invention was made to employ the defective pixel location map, as taught by Tan in order to continuously detect defective pixels within the image sensor. Further, the setting of parameters for determining pixel defects based on the detection device detecting that a pixel is defective based on either an assigned value falling below a minimum value threshold or the noise in the assigned signal exceeds a maximum value would have been obvious

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well known parameters for an artisan to choose since these are standard value problems that occur in digital optical detecting systems.


**Conclusion**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irakli Kiknadze whose telephone number is (703) 305-6464. The examiner can normally be reached on M-F(8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (703) 308-4858. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Irakli Kiknadze  
July 2, 2003

  
EDWARD J. GLICK  
*Supervisor Patent Examiner*  
TECHNOLOGY CENTER 2800